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State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-2-105-1-A Relating to Certification of New Motor Vehicles

FUJI HEAVY INDUSTRIES, LTD.

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That 1998 model-year Fuji Heavy Industries, Ltd. exhaust emission control systems are certified as described below for passenger cars:

Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Engine Family: WFJXV02.5DCD <u>Displacement</u>: 2.5 Liters (150 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Three Way Catalytic Converters (two) Heated Oxygen Sensors (two) Exhaust Gas Recirculation Sequential Multiport Fuel Injection

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The TLEV certification exhaust emission standards for this engine family in grams per mile are:

Miles	Non-Methane Organic Gases	Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>	<u>Formaldehyde</u>	Carbon Monoxide (20°F)
50,000	0.125	3.4	0.4	0.015	10.0
100,000	0.156	4.2	0.6	0.018	n/a

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.98

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a 0.98 RAF for 1998 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are:

Miles	Non-Methane Organic Gases	Carbon <u>Monoxide</u>	Nitrogen Oxides	<u>Formaldehyde</u>	Carbon <u>Monoxide (20°F)</u>
50,000	0.082	1.0	0.1	0.001	6.5
100,000	0.092	1.1	0.1	0.002	n/a

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average NMOG exhaust mass emission requirements as set forth in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the running loss and useful life standards applicable to 1995 and subsequent model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the "California Refueling Emission Standards and Test Procedures for 1998 and Subsequent Model Motor Vehicles," Title 13, California Code of Regulations, Section 1978, and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the vehicle manufacturer has demonstrated compliance with the exhaust emission standards at 50 degrees Fahrenheit as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Emission Control and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 37 day of August 1997.

R. B. Summerfield Chief

Mobile Source Operations Division

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

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	Fuji Heavy Industries Ltd.	Exh Eng F	'am:	WFJXV02	.5DCD Eva	p Fam: WFJX	CR01251BB
-	in Engine Family: CA <u>x</u>						
	ier-I TLEV_x_ I						
	C <u>x</u> LDT1 LDT2						
Single Cert Std for	Multi-Class Eng Fam:	(specify:	N/A, LI	TI, MDVI,	MDV2, MDV3,	MDV4)
Fuel Type(s):	Dedicated x Flex-Fuel	Dı	ıal-Fuel	Bi-	Fuel Ga	soline Di	iesel
(CNG LNG LPG	i N	1 85	Othe	r (specify)		
Exh Emiss Test Fu	iel(s): Indo CBG	CNC	5L	.PG	M85O	ther (specify)	
	Diesel: 13 CCR 228	32	40 CFR 8	36.113-90	40 CFR	86.113-94	
Evaporative Emiss	sion Test Procedure: Californi	a	F	ederal <u>x</u>	<u>—</u>		
Service Accum:	Std AMA_x_ Mod AMA_	N	Mfr ADP_	O1	her (specify)		
NMOG Test Proce	edure: N/A Std_x	Equiv	_	R/L Test	Proc: SHED_	Pt Source	X
Engine Configura	tion: #4 Displaceme	ent:	/ 2.5	Liters	/	50 Cubic Inc	hes
Valves per Cylind	er: 4	1	Rated HP:		<u>165@</u>	5600	RPM
Engine: Front_	x Mid Rear]	Drive: FV	WD	RWD 4	WD-FT <u>x</u> 4	WD-PT
Engine: Front_	x Mid Rear]	Drive: FV	WD (Z), HO	RWD 4	WD-FT <u>x</u> 4	WD-PT
Engine: Front_]	Drive: FV	WD (Z), HO	RWD 4	WD-FT <u>x</u> 4	WD-PT
Engine: Front_ xhaust ECS (e. Engine Code	x Mid Rear g., MFI, EGR, TC, CAC): ≤ Vehicle Models	Trans.	Drive: FV FR TWE (u ETW	WD (2) HO se abbrevi	RWD4 25(2) ations per SAE J Ignition	WD-FT_x_ 4 1930 JUN93) EGR	WD-PT
Engine: Front_ 'xhaust ECS (e. Engine Code (also list	x Mid Rear g., MFI, EGR, TC, CAC): ≤	Trans. (M5, A	Drive: FV ER TWC (u ETW or	WD (Z) HO se abbrevi DPA or	RWD4 25(z) ations per SAE J Ignition (ECM/PCM)	WD-FT_X_ 4 1930 JUN93) EGR System	WD-PT
Engine: Front_ 'xhaust ECS (e. Engine Code (also list CA/49ST/50ST)	x Mid Rear g., MFI, EGR, TC, CAC): Sy Vehicle Models (if coded see attachment)	Trans.	Drive: FV FR TWE (u ETW	WD (2) Ho se abbrevi DPA or RLHP	RWD4 25(2) ations per SAE J Ignition	WD-FT_x_ 4 1930 JUN93) EGR	Catalytic Converter
Engine: Front_ 'xhaust ECS (e. Engine Code (also list	x Mid Rear g., MFI, EGR, TC, CAC): ≤ Vehicle Models	Trans. (M5, A	Drive: FV ER TWC (u ETW or	WD (2) HO se abbrevia DPA or RLHP 10.3	RWD4 25(z) ations per SAE J Ignition (ECM/PCM) Part No. Electronic Control	Part No. EGR Valve: Mitsubishi	Catalytic Converter Part No. Fuji's Part No. Front:
Engine: Front_ 'xhaust ECS (e. Engine Code (also list CA/49ST/50ST)	x Mid Rear g., MFI, EGR, TC, CAC): ≤ Vehicle Models (if coded see attachment) FORESTER 5D AWD BASE	Trans. (M5, A etc.)	Drive: FV ER TWC (u ETW or Test Wt.	WD	RWD4 25(z) Ations per SAE J Ignition (ECM/PCM) Part No. Electronic Control Unit:	PWD-FT_x_ 4 1930 JUN93) EGR System Part No. EGR Valve: Mitsubishi K005T75071	Catalytic Converter Part No. Fuji's Part No. Front: 20805AB100
Engine: Front_ 'xhaust ECS (e. Engine Code (also list CA/49ST/50ST)	x Mid Rear g., MFI, EGR, TC, CAC): Sy Vehicle Models (if coded see attachment) FORESTER 5D AWD BASE FORESTER 5D AWD L FORESTER 5D AWD S FORESTER 5D AWD L	Trans. (M5, A etc.)	Drive: FV ER TWC (u ETW or Test Wt.	DPA or RLHP 10.3 9.6 10.1	RWD4 25(z) ations per SAE J Ignition (ECM/PCM) Part No. Electronic Control Unit: Fuji's Part No.	PWD-FT_x_ 4 1930 JUN93) EGR System Part No. EGR Valve: Mitsubishi K005T75071 Fuji's Part No.	Catalytic Converter Part No. Fuji's Part No. Front: 20805AB100 Rear:
Engine: Front_ 'xhaust ECS (e. Engine Code (also list CA/49ST/50ST) W2.5TMB	x Mid Rear g., MFI, EGR, TC, CAC): Sy Vehicle Models (if coded see attachment) FORESTER 5D AWD BASE FORESTER 5D AWD L FORESTER 5D AWD S	Trans. (M5, A etc.)	ETW or Test Wt.	WD	RWD4 25(z) Ations per SAE J Ignition (ECM/PCM) Part No. Electronic Control Unit:	PWD-FT_x_ 4 1930 JUN93) EGR System Part No. EGR Valve: Mitsubishi K005T75071	Catalytic Converter Part No. Fuji's Part No. Front: 20805AB100
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Engine: Front_ 'xhaust ECS (e. Engine Code (also list CA/49ST/50ST) W2.5TMB	x Mid Rear g., MFI, EGR, TC, CAC): Sy Vehicle Models (if coded see attachment) FORESTER 5D AWD BASE FORESTER 5D AWD L FORESTER 5D AWD S FORESTER 5D AWD L	Trans. (M5, A etc.)	ETW or Test Wt.	DPA or RLHP 10.3 9.6 10.1	RWD4 25(z) ations per SAE J Ignition (ECM/PCM) Part No. Electronic Control Unit: Fuji's Part No.	PWD-FT_x_ 4 1930 JUN93) EGR System Part No. EGR Valve: Mitsubishi K005T75071 Fuji's Part No.	Catalytic Converter Part No. Fuji's Part No. Front: 20805AB100 Rear:
Engine: Front_ 'xhaust ECS (e. Engine Code (also list CA/49ST/50ST) W2.5TMB	x Mid Rear g., MFI, EGR, TC, CAC): Sy Vehicle Models (if coded see attachment) FORESTER 5D AWD BASE FORESTER 5D AWD L FORESTER 5D AWD S FORESTER 5D AWD L	Trans. (M5, A etc.)	ETW or Test Wt.	DPA or RLHP 10.3 9.6 10.1	RWD4 25(z) ations per SAE J Ignition (ECM/PCM) Part No. Electronic Control Unit: Fuji's Part No.	PWD-FT_x_ 4 1930 JUN93) EGR System Part No. EGR Valve: Mitsubishi K005T75071 Fuji's Part No.	Catalytic Converter Part No. Fuji's Part No. Front: 20805AB100 Rear:

#The model is tested at higher ETW in accordance with 40 CFR 86.094-26(a)(2).

Date Issued: 7/18/'97

Revisions: